

City of Concord
Contra Costa County

Federal Fiscal Year 2007/2008 Bridge Preventative Maintenance Program

Updated Sept. 18, 2015.

Project Description (Separated into two groups based on environmental documentation requirements)

- > **Group 1 Bridges**, total 6 (1, 4, 6, 7, 14 & 19)
Costs revised based on low bid + CCO's
- > **Group 2 Bridges**, total 11 (2, 3, 5, 8, 9, 10, 12, 13, 15, 16 & 17)
Costs revised based on unit prices from low bid for Group 1 bridges.
- > **Remaining Bridges**, total 4 (11, 18, 20 & 21)
Removed from BPMP program as noted under "Work Description" column

Cost Summary

- > **Group 1 Bridges**: As of the date of this update, they are under construction with a substantial amount of the work complete. The updated costs for these bridges are based on the bid price plus extra work that has occurred. Additional contingency to cover the remaining work is included as noted under "Participating Costs".
- > **Group 2 Bridges**: Construction costs are revised based on unit prices bid for the Group 1 Bridges. A 20% contingency is included.

Participating Costs

	Group 1	Group 2	Totals
PE	\$534,144	\$276,081	\$810,225
Construction	\$737,652	\$2,208,667	\$2,946,319
*Contingency	\$64,000	\$441,733	\$505,733
	\$801,652	\$2,650,400	\$3,452,052
Construction Engineering	\$84,133 (actual)	\$241,833 (projected)	\$325,966
	\$1,419,929	\$3,168,314	\$4,588,243

Bob Fish, PE, SE
6-Nov-15

* Contingency set at \$64 k for remainder of Group 1 construction.
Contingency set at 20% for preliminary Group 2 engineering phase.

 Shading Indicates Group 1 Bridges

Priority (Lowest No. is Top Priority)	Bridge No. from Inspection Report	Facility Carried	Feature Intersected	Location	Sufficiency Rating	SD/FO Status	Work Description (See Notes)	Deck Area (ft ²)	Total Participating Cost	Unit Cost (\$ / ft ²)	Federal Share	Running Federal Summary	Local Share	Running Local Summary
1	28C0034 	Willow Pass Rd	Mt. Diablo Creek	0.8 mi South of Hwy 4	47.1	SD	1. Remove slope paving remnant and replace with full slope paving. (287 sqft) 2. Repair all spalls and incipient spalls on columns, piers and deck soffit. (21 cf) 3. Epoxy inject all cracks in piers and bridge deck. (297 lf) 4. Replace barrier railing. (2,128 lf) 5. Construct polymer concrete deck overlay. (27,842 sqft) DURATION = 40 WD's	33,867	\$419,566.67	\$12.39	\$371,442	\$371,442	\$48,124	\$48,124
2	28C0183 	Willow Pass Road	Walnut Creek	At I-680	66.7	SD	1. Rehabilitate RSP to protect piers 3 and 4, and to control erosion from storm runoff from Iron Horse Regional Trail. (2,706 cy) 2. Repair concrete spalls on piers and girders. (24 cf) 3. Clean and replace joint seals. (466 lf) 4. Rehabilitate longitudinal joint between abutment 1 and pier 4. (15 lf) 5. Construct polymer concrete deck overlay. (25,912 sqft) 6. Repair metal bridge railing. (48 lf) 7. Remove and reconstruct portions of sidewalk approaches. (5 cy) DURATION = 34 WD's	28,860	\$1,187,700	\$41.15	\$1,051,471	\$1,422,913	\$136,229	\$184,353
3	28C0091 R 	Concord Ave	Walnut Creek	0.83 mi East of I-681	62.2	SD	1. Rehabilitate RSP at pier 4, the footing of which has been exposed. (292 cy) 2. Rehabilitate the retaining wall and bridge railing which has settled 7 inches on RH side of abutment 1. 3. Repair concrete spalls and incipient spalls in beam seats in the pier walls and abutments. (67 cf) 4. Repair portions of PC/PS I-girders that exhibit spalling and incipient spalling possibly related to fire damage. Remove unsound concrete and replace to original dimensions of girder cross sections. (60 lf) 5. Clean and replace bridge deck joint seals. (137 lf) 6. Construct polymer concrete deck overlay. (14,146 sqft) 7. Remove and reconstruct portions of sidewalk approaches. (4 cy) DURATION = 32 WD's	32,702	\$417,300	\$12.76	\$369,436	\$1,792,349	\$47,864	\$232,217

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4	28C0189R 	Diamond Blvd	Walnut Creek	0.1 mi North of Willow Pass Rd.	69.7	SD	<ol style="list-style-type: none"> 1. Seal utility openings at abutments. (8 cf) 2. Repair concrete spalls on pier walls and girders. (7 cf) 3. Clean and replace joint seals. (288 lf) 4. Construct polymer concrete deck overlay. (7,822 sqft) 5. Repair metal bridge railing. 6. Remove and reconstruct portions of sidewalk approaches. (4 cy) <p>DURATION = 11 WD's</p>	20,064	\$155,771.67	\$7.76	\$137,905	\$1,930,254	\$17,867	\$250,084
5	28C0091L 	Concord Ave	Walnut Creek	0.83 mi East of I-680	62.3	SD	<ol style="list-style-type: none"> 1. Repair areas of main prestressed I-girders exhibiting spalling and incipient spalling possibly related to fire damage. Remove unsound concrete and replace to original dimensions of girder cross-section. (60 lf) 2. Repair spalls and incipient spalls in abutment and pier diaphragms. (66 cf) 3. Clean and replace joint seals. (129 lf) 4. Construct polymer concrete deck overlay. (12,929 sqft) 5. Remove and reconstruct portions of sidewalk approaches. (2 cy) <p>DURATION = 25 WD's</p>	32,702	\$316,900	\$9.69	\$280,552	\$2,210,806	\$36,348	\$286,432
6	28C0189L 	Diamond Blvd	Walnut Creek	0.1 mi North of Willow Pass Rd	69.7	SD	<ol style="list-style-type: none"> 1. Repair concrete spalls on pier walls and girders. (2 cf) 2. Seal utility openings at abutments. (10 cf) 3. Clean and replace joint seals. (288 lf) 4. Construct polymer concrete deck overlay. (7,822 sqft) <p>DURATION = 11 WD's</p>	20,064	\$149,296.67	\$7.44	\$132,172	\$2,342,978	\$17,124	\$303,556
7	28C0436 	Walnut Ave	Contra Costa Canal	0.01 mi East of The Alameda	72.5		<ol style="list-style-type: none"> 1. Seal joint at EB to prevent water from reaching the abutment. (4 lf) 2. Construct slope paving to channel storm water away from the abutment and into the canal. (4 cy) 3. Remove timber railing and replace with metal bridge railing. (80 lf) <p>DURATION = 16 WD's</p>	745	\$37,953.67	\$57.73	\$33,600	\$2,376,578	\$4,353	\$307,909
8	28C0115 	Ygnacio Valley Rd	Galindo Creek	0.05 mi West of Alberta Way	80.5		<ol style="list-style-type: none"> 1. Repair AC dike and construct outside drain to reroute roadway surface drainage. (1 ton) 2. Repair concreted RSP on east side of upstream end of culvert. (5 cy) 3. Place RSP at both upstream and downstream ends of culvert, on west side of creek. (88 cy) 4. Core through downstream retaining walls and place tiebacks to limit displacements caused by tree roots. (3 ea) 5. Repair spalled surface areas. (1 cf) <p>DURATION = 16 WD's</p>	3,218	\$108,300	\$33.65	\$95,878	\$2,472,456	\$12,422	\$320,331

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9	28C0232 	St Francis Drive	Galindo Creek	0.1 mi East of Oak Grove Road	50.6	SD	<ol style="list-style-type: none"> Construct shotcrete lagging and wingwalls. (30 cy) Place RSP to protect the base of abutment 1 from further erosion. (65 cy) Remove concrete obstruction by breaking into pieces and placing in existing local scour hole. Treat bridge deck with methacrylate sealant. (872 sqft) Remove and replace portions of sidewalk approaches. (3 cy) DURATION = 18 WD's	1,140	\$115,200	\$98.44	\$101,987	\$2,574,443	\$13,213	\$333,544
10	28C0357 	San Miguel Road	Pine Creek	0.2 mi NW of Treat Boulevard	95.9		<ol style="list-style-type: none"> Remove and replace the East and West parapet wall on the original culvert. (12 cy) Remove and replace chain link railing. (118 lf) Remove and replace unsound concrete on the east joint between the box culvert and the adjacent retaining wall. (16 cf) Replace the joint between the original and lengthening structure on the east side. DURATION = 16 WD's	4,387	\$151,600	\$34.56	\$134,211	\$2,708,654	\$17,389	\$350,933
11	28C0220 	Cape Cod Way	Galindo Creek	0.1 mi NE of Essex Court	78.3		<p>Determined to be less than 20' in length (not a "bridge")</p> <ol style="list-style-type: none"> Rehabilitate the rock slope protection at the downstream end of the culvert, on the north side of Galindo Creek. (80 cy) remove unsound concrete and patch the joint between the RCP and wingwall at the upstream end of the culvert, on the south bank of Galindo Creek. (1 cf) DURATION = 6 WD's	896	\$0	\$0.00	\$0	\$2,708,654	0	\$350,933
12	28C0361 	Concord Blvd	Mount Diablo Creek	0.3 mi East of Bailey Road	90.8		<ol style="list-style-type: none"> Repair concreted rock slope and invert protection at downstream EOD. (181 cy) DURATION = 8 WD's	5,587	\$55,200	\$9.88	\$48,869	\$2,757,523	\$6,331	\$357,264
13	28C0362 	Ayers Road	Mount Diablo Creek	0.3 mi North of Clayton Road	94.1		<ol style="list-style-type: none"> Apply methacrylate deck seal. (2,400 sqft) DURATION = 1 WD	3,240	\$13,800	\$4.26	\$12,217	\$2,769,740	\$1,583	\$358,847

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14	28C0116 	Kirker Pass Road	Mount Diablo Creek	0.2 mi North of Clayton Road	81.8		1. Remove and replace fence posts. (8 ea) 2. Remove unsound concrete and place formed concrete patches at fence post pockets with incipient spalls. (3 cf) DURATION = 4 WD's	8,154	\$23,396.67	\$2.87	\$20,713	\$2,790,453	2684	\$361,531
15	28C0278 	Claudia Drive	Holbrook Channel	0.1 mi North of Holbrook	89.5		1. Remove and replace unsound concrete on the soffit and pier wall. (55 cf) 2. Remove and replace unsound concrete around utility opening in the northwest wing wall. 3. Replace portions of sidewalks that have been damaged by settlement. (3 cy) DURATION = 13 WD's	1,227	\$139,300	\$41.99	\$123,322	\$2,913,775	\$15,978	\$377,509
16	28C0224 	Whitman Road	SDM Channel	0.3 mi NE of Oak Grove Road	82.8		1. Remove chain link fence posts. (10 ea) 2. Remove unsound concrete at spall locations. (5 cf) 3. Clean and patch areas where reinforcement is exposed. 4. Replace chain link fence posts. (10 ea) DURATION = 8 WD's	2,982	\$59,900	\$20.09	\$53,029	\$2,966,804	\$6,871	\$384,380
17	28C0221 	Court Lane	Galindo Creek	0.1 mi South of Cowell Road	88.5		1. Notify resident regarding need to remove tree. 2. Protect creek bank on the south side of the creek on the upstream side of the bridge against further erosion by placing RSP. (185 cy) 3. Repair concreted rock below headwall for 18" RCP on downstream side of bridge. (20 cy) DURATION = 12 WD's	1,088	\$85,200	\$78.33	\$75,428	\$3,042,232	\$9,772	\$394,152
18	28C0353 	Minert Street, BART, David Ave.	POC	0.05 mi NE of Helix Drive	N/A		Pedestrian Bridge. Not qualified for BPMP 1. Remove unsound concrete and repair spalls in the walkway deck and railing surfaces. (24 cf) 2. Remove unsound concrete and repair spall in the bridge soffit at one location. DURATION = 5 WD's	2,904	\$0	\$0.00	\$0	\$3,042,232	\$0	\$394,152
19	28C0427 	Cowell Road	Galindo Creek	0.05 mi South of Babel Lane	96.2		1. Repair spalled surface area. (2 cf) DURATION = 1 WD	2,533	\$15,666.67	\$6.19	\$13,870	\$3,056,102	\$1,797	\$395,949

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20	28C0276 	Risdon Street	SDM Channel	0.25 mi SW of Oak Grove Road	89.5		No BPMP qualified repairs identified. 1. Notify owners of SDM channel to make repairs to settled concreted slope protection at US face of weir.	2,193	\$0	\$0.00	\$0	\$3,056,102	\$0	\$395,949	
21	28C0198 	Clayton Road	Pine Creek		93.8		No BPMP qualified repairs identified. 1. Notify utility owner to repair spalled concrete at utility support anchorage locations.	6,477	\$0	\$0.00	\$0	\$3,056,102	\$0	\$395,949	
Total from above table for Construction + Contingency									\$3,452,052		\$3,056,102		\$395,949		
SUB-TOTALS:															
Construction									\$3,452,052		\$3,056,102		\$395,950		
PE									\$810,225		\$717,292		\$92,933		
Construction Engineering									\$325,966		\$288,578		\$37,388		
TOTALS:									\$4,588,243		\$4,061,972		\$526,271		